

REMARKS

Claims 1-23 were pending in the subject application. In reply to a restriction/election requirement, Applicants provisionally elected claims 1-10, 15 and 22 with traverse for prosecution in the present application. The Examiner made final the restriction requirement and withdrew from consideration claims 11-14, 16-21 and 23. Claims 1, 2, 6 and 22 have been amended herein. Claim 5 has been canceled. Support for the amendments can be found in the specification and the claims as filed. The amendments to the claims add no new matter. Applicants respectfully request entry of the claim amendments.

Information Disclosure Statement

In response to the Examiner's request, reference DE 197 45 904 A1, and U.S. family member 6,462,095, are provided in an Information Disclosure Statement mailed with this Amendment and Reply. The requisite fee for the enclosed Information Disclosure Statement is also enclosed.

Objections to the Claims

The Examiner objected to claim 22, requesting correction that the units "mg Pt/cm²" be changed to "mg/cm² Pt". Applicants have amended claim 22 in accordance with the Examiner's request.

Claim Interpretation

The Examiner indicated that the term "nanoparticles" in claims 1-6, 15, and 22 is not accompanied by a recitation in the claims of upper and lower bounds with respect to diameter. Applicants submit that a person of ordinary skill in the art, in light of the specification, would understand that "nanoparticles" as used in the cited claims includes particles of between 0.1 and 100 nm, preferably between 1 and 20 nm, and in particular between 1 and 5 nm (see, for example, the specification at page 6, lines 2-3). Thus, Applicants submit that the upper and lower bounds of "nanoparticles" are described

clearly in the specification, and the Examiner's assertion that nanoparticles can have diameters of 100,000 nanometers is not reasonable in light of the specification.

Rejections Under 35 U.S.C. § 112, Second Paragraph

The Examiner rejected claims 15 and 22 as allegedly indefinite, asserting that it is unclear whether claims 15 and 22 require all of the constituents of the intermediate product of claim 1, in particular the presence of the polysaccharide. The Examiner requested clarification regarding the scope of claims 15 and 22 and regarding the Examiner's interpretation.

Applicants respectfully disagree with the Examiner's rejection and submit that claims 15 and 22 are not indefinite to a person of ordinary skill in the art in light of the specification. Claim 1 is directed to certain nanoparticles embedded in an aqueous solution of a temporary stabilizer. Claims 15 and 22 are directed to membrane electrode assemblies made with the nanoparticles of claim 1 or containing nanoparticles obtained by using the nanoparticles of claim 1. Neither claim 15 or 22 indicate that their claimed membrane electrode assemblies contain or comprise the nanoparticles of claim 1. Rather, their claimed assemblies are made using the claim 1 nanoparticles. Accordingly, the Examiner's statement that "claims 15 and 22 are drawn to the combination of the product of claim 1 [e.g., nanoparticles and temporary stabilizer] in a membrane electrode assembly" is incorrect. Reconsideration or clarification of the rejection is respectfully requested.

Rejections Under 35 U.S.C. §102(b)

The Examiner stated that claim 5 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The Examiner stated that none of the prior art of record appear to teach, suggest, or render obvious the noble metal or noble metal/base metal nanoparticles embedded in an aqueous solution of a temporary stabilizer which is a polysaccharide wherein the solution has a total chloride concentration of less than 100 ppm. The Examiner stated that U.S. Patent No. 5,421,989 to Stamp ("Stamp") contains no teaching or suggestion to control the

chlorine concentration to be less than 100 ppm, and a person of ordinary skill in the art would not have been drawn to such a conclusion given the fact that Stamp teaches the presence of chlorine in excess of 100 ppm. The Examiner stated that the presence of chlorine tends to lead to corrosion of the catalyst components and the catalyst further has reduced resistance to aging and, thus, there is significance to the reduced chlorine content as recited in claim 5 and such a teaching is not readily taught, suggested, or obvious over the prior art of record.

The Examiner rejected various combinations of the remaining claims as allegedly anticipated by U.S. Patent No. 5,421,989 to Stamp, U.S. Patent No. 4,744,760 to Molday, and DE 197 54 304A1.

Applicants disagree with the Examiner regarding the rejections based on the cited prior art. However, in order to advance prosecution of the subject application, Applicants have amended claim 1 to include all the limitations of claim 5. Applicants submit that the Examiner's anticipation rejections based on the cited prior art are now overcome in light of the amendment. Accordingly, Applicants submit that all the pending claims under consideration now comprise the limitations of claim 5 and hence comprise allowable subject matter.

The remaining amendments to claim 1 and the amendments to claims 2, 6, and 22 were made to correct typos or to more clearly set forth the claimed invention. These latter amendments are made voluntarily and not for reasons of patentability or to overcome any of the rejections set forth in the September 3, 2004 Office Action.

Conclusion

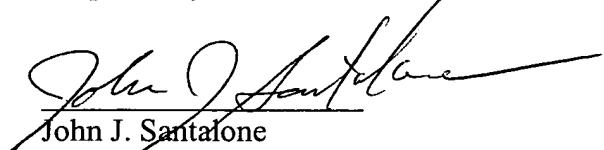
In view of the foregoing amendments, and the remarks set forth above, reconsideration and allowance are respectfully solicited.

Enclosed is a check for \$1200 to cover the \$1020 fee for a three-month extension of time and the \$180 fee for the accompanying Information Disclosure Statement. No additional fee is believed to be due with respect to the filing of this amendment. If any additional fees are due, or an overpayment has been made, please charge, or credit, our Deposit Account No. 11-0171 for such sum.

Applicants: STARZ *et al.*
Serial No.: 09/910,959
Filing Date: July 24, 2001
Amendment and Reply to Nonfinal Office Action - March 3, 2005
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If the Examiner has any questions regarding the present application, the Examiner is cordially invited to contact Applicant's attorney at the telephone number provided below.

Respectfully submitted,


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